

## Short impact assessment - Farmwise

<b>Description of the intervention:</b>	<p>Revision of a key agriculture publication 'Farmwise – your essential guide to health and safety in agriculture'.</p>
<b>Objectives:</b>	<p>'Farmwise' is a comprehensive, source of practical health and safety guidance targeted at the farming industry. It links a clear explanation of legal duties with good practice, for a wide range of core agricultural activities. The first seven sections are aimed at those responsible for running the business; the remaining sections focus on hazards and are relevant both to employers and workers. In doing so it identifies the main causes of accidents and ill health and provides guidance on good practice for eliminating hazards, controlling risks and achieving high standards of health and safety in agriculture. The booklet forms the basis for managing health and safety in the industry and in effect, provides a single wide-ranging source of information for the industry.</p> <p>Farmwise was originally produced in 1993 and, at the time, was direct mailed to over 200,000 farms. It was reprinted in 1999 and 2005 but stock levels are getting low and a revision is now due. There are likely to be a number of changes, some of which are likely to be substantive - examples include:</p> <ul style="list-style-type: none"> <li>• the majority of revisions will be presentational to give the guidance a 'fresh look' (e.g. changing to corporate style, refreshing dated photographs and updating thumbnail images of HSE guidance with the latest version);</li> <li>• updating references to legislation which has changed since 2005;</li> <li>• extending some of the topics to reflect current interest and HSE activities for example, i) amending the section on temp/casual workers to include migrant workers, referring to some of the new (since 2005) guidance aimed at the workers and labour providers, ii) likewise for vibration and iii) updating the list of zoonotic infections to include avian flu, q-fever, etc);</li> <li>• the only subject which is likely to require a new section is the subject of education, which will refer to the availability of recently developed H&amp;S related vocational qualifications. These were introduced approx 2 years ago but are not mandatory - Farmwise will simply promote their availability.</li> </ul>
<b>Calculation of costs:</b>	<p>Farmwise is a non-priced publication which acts as a source of information and routemap to more detailed information on a wide range of H&amp;S issues which affect agriculture. The revised guidance will not generate any new requirements for farm businesses in terms of managing health and safety risks beyond that already detailed in existing regulations and guidance - and to a very large degree set out in the current version of Farmwise itself. As a consequence, the costs generated are expected to be modest.</p> <p>Information on the number of farms/farmers targeted, and the likely uptake of the guidance is been based on data from Defra<sup>1</sup> and a 1999 evaluation of</p>

<sup>1</sup> Defra Farm Census 2006 – [www.defra.gov.uk](http://www.defra.gov.uk)

Farmwise<sup>2</sup>. The costs of implementing control measures are based on industry specific knowledge.

All estimates of the costs and benefits have been rounded, and have been appraised over a five year period.

### **Numbers of farm holdings in GB**

There are approximately 300,000 registered holdings in GB of which some 180,000 are working farms (the balance being 'hobby' and similar small farms). Of these, 92,550 are large enough to employ one farmer for at least half the time. These 92,550 farms make up approximately 90% of agricultural land and 95% of the agriculture labour force. Source: see footnote<sup>3</sup>. On this basis it is assumed that a typical agricultural farm has an average of two workers (including the farmer/owner).

### **Numbers of agriculture workers in GB**

Defra 2006 census figures indicate a total labour force of 361,017 (223,769 self-employed, 137,248 employed) in England and 56,412 (43,100 self-employed, 13,312 employed) in Wales. Including an estimate for Scotland gives a total labour force for GB of 473,841 (309,969 self-employed, 163,872 employed).

### **Assumptions for Farmwise**

Based on historic distribution figures for the current version of Farmwise, it is estimated that 75,000 copies will be distributed over the next three years (hardcopy and downloaded from the HSE website), at an average of one copy per farm. Assuming that each farm is on average made up of two farmers, an estimated total of 150,000 farmers will receive this publication. This equates to 32% (150,000/473,841) of the total estimated agricultural labour force.

### **Familiarisation costs**

It is assumed that all 75,000 copies of Farmwise are distributed in the first three years of the appraisal period, at an average of 25,000 copies a year. Assuming an average of two farmers per farm business, this represents 150,000 farmers – an average of 50,000 per year - that will receive/have access to a copy of Farmwise.

It is assumed that of the 50,000 farmers per year that receive a copy for the first three years:

*30% (15,000 farmers per year – 7,500 farm businesses) may read all of the guidance.* The guidance is estimated to take a farmer one hour to read in its entirety. Based on the average hourly wage of a farmer<sup>4</sup>, uprated by 30% to

<sup>2</sup> Farmwise Telephone Research – Aspect Marketing Research Ltd [1999]

<sup>3</sup> Defra farm census 2006 figures (and independent research by Oxford Strategic Marketing) for England and estimated from previous figures obtained from the Welsh Assembly and Scottish Government.

<sup>4</sup>Source: Office of National Statistics, Annual Survey of Hours and Earnings, 2007, SIC code 5111.

<sup>5</sup> This figure has been derived from the hourly wage for a farmer, £11.40/2, to arrive at the half hourly wage cost estimate.

<sup>6</sup> The wage cost is identical to the hourly wage applied to estimate the familiarisation costs.

<sup>7</sup> Agriculture 'Insight' Report – Oxford Strategic Marketing [2008]

<sup>8</sup> The annualised cost is the annual cost which when discounted over the appraisal period is equal to the present value of costs.

reflect non-wage costs, would equate to a cost of £11.40. This yields a total cost in present value terms of £479,700 over a three year period.

*25% (12,500 farmers per year – 6,250 farm businesses) may read only some parts of the guidance (for example, the parts they consider to be specifically relevant to them). This is estimated to take thirty minutes, at a cost of £5.70<sup>5</sup>. This yields a total cost in present value terms of £199,900 over a three year period.*

*45% (22,500/11,250 farm businesses per year) may simply replace their old copy, using it as reference aid for when they address H&S issues (previous access to an earlier version means that their awareness has already been raised and/or that they have previously taken action).*

Combining the above costs (£479,700+ £199,900) yields a total estimated cost of familiarisation in present value terms of £679,500. This cost is assumed to be incurred during the first three years of the appraisal period. The annualised cost is estimated at £226,500 per annum.

#### **Risk assessment costs**

Evidence from the Farmwise evaluation indicates that only 5% of farmers are likely to have taken action after reading the guidance. A risk assessment aimed at examining current work practices and equipment, as recommended by the guidance, would be likely to precede any such action.

In order to reflect this, it is assumed that of the 13,750 farm businesses that read the entire/relevant sections of the guidance per year, for the first three years:

*Between 30% ( 4,125 per year/12,375 over a three year period) to 35% (4,813 per year/ 14,439 over a three year period) farm businesses, over a three year period, then go on to undertake a risk assessment. This is assumed to take one hour, at a cost of £11.40<sup>6</sup>.*

This gives a total estimated risk assessment cost of £131,900 to £153,900. This cost is assumed to be incurred during the first three years of the appraisal period. The annualised cost is estimated at £44,000 to £51,200 per annum.

#### **Control measure costs**

Given the fact that the guidance will not generate any new requirements for farm businesses and that there is no requirement or compulsion on the dutyholder either to obtain or act upon it, it has been assumed that of the total number of farm businesses that undertake a risk assessment (12,375 to 14,439) 5% implement a control measure (619 to 722).

Knowledge of the industry (supported by research<sup>7</sup>) suggests that the majority of farmers are struggling economically. It can therefore be assumed that any measures taken to improve H&S will be at the lower end of the cost scale.

Typical examples of actions, with estimated costs of the actions are as follows :

1. Replace a power take-off (PTO) shaft (approx £120)
2. Purchase a replacement ladder (approximately £100)

	<p>3. Hire an expert electrician (approximately £200) 4. Maintenance of brakes (approximately £150, every two years)</p> <p>Due to financial constraints, it is expected that the average farm is likely to implement only one of the above actions. The chosen measure would reflect the priorities identified in the risk assessment. In order to reflect this, an approximate average cost of £140 for the first three actions is assumed.</p> <p>Applying these assumptions yields a total one-off control measure cost estimate of £86,700 (£140 x 619) to £101,100 (£140 x 722) for actions 1 to 3. For action four, the recurring cost (£150 x 619 and £150 x 722) at years 1, 3 and 5 of the appraisal period is estimated at £247,000 to £288,200 in present value terms. Combining these costs yields a total control measure cost estimate of approximately £333,600 to £389,200.</p> <p><b>Overall Costs</b></p> <p>The total costs to farm businesses over a five year appraisal period, using 2008 as a base year, are estimated at approximately <b>£1,100,000 - £1,200,000</b>.</p> <p>Of this total, the recurring cost portion is estimated at £1,000,000 to £1,100,000 (relating to the costs of familiarisation, risk assessment and brake maintenance). This corresponds to an annualised value of approximately £210,000 to £220,000 per annum.<sup>8</sup></p>
<p><b>Impact on industry (including any effect on the Admin Burdens Baseline):</b></p>	<p>The costs outlined above would fall on the industry. There is not expected to be any impact on the administrative burden from this guidance and there is not expected to be any impact on competition.</p>
<p><b>Benefits (quantified where possible):</b></p>	<p>The aim of this publication is to raise awareness and to contribute to the reduction of death, injury and ill health in the industry. There is limited evidence on the scale of injuries that may be prevented. It is therefore difficult to directly attribute any potential prevention of injuries directly to this publication. However, the actions assumed to be taken to reduce H&amp;S risk by farm businesses as a result of reading this guidance, may, in conjunction with other measures lead to positive outcomes.</p> <p>For the benefits presented below, the following has been applied:</p> <ol style="list-style-type: none"> <li>1. Data from the 2005/06 Agriculture Report on the number of major, over three day and minor injuries has been utilised<sup>9</sup>. Data for each of these categories has been adjusted by 32% of the total to reflect the number of farmers that are targeted by the guidance.</li> <li>2. The rate of injuries are assumed to remain constant for five years;</li> <li>3. EAU appraisal value estimates<sup>10</sup> for average costs of major, over three day and minor injury categories have been applied.</li> <li>4. For indicative purposes, benefits are assumed to be incurred by all targeted farm businesses (not just those assumed to take action)</li> </ol>

<sup>9</sup> <http://www.hse.gov.uk/agriculture/information.htm#fatal+>

<sup>10</sup> HSE Economic Analysis Unit appraisal values can be accessed from: <http://www.hse.gov.uk/economics/eauappraisal.htm>

	<p><u>Major injuries:</u> <i>If a 1% to 2% reduction over five years were to be assumed:</i> 32% of 1,560 major injuries in 2005/06 would equate to a possible reduction of a total of 499 major injuries. 1% to 2% of this total equates to 5 to 10 major injuries that may be prevented - an average of 1 to 2 per year. The EAU appraisal values estimate for the costs of a major injury: £38,500. This gives an estimated benefit (cost savings in the prevention of major injuries) of £184,000 to £368,000 over the appraisal period, in present value terms.</p> <p><u>Minor injuries:</u> <i>If a 0.5% to 1% reduction over five years were to be assumed:</i> 32% of 7,470 minor injuries equates to a possible reduction of 2,390 minor injuries. 0.5% to 1% of this total equates to 12 to 24 minor injuries that may be prevented – an average of 2 to 5 per year. The EAU appraisal value estimate for the costs of a minor injury: £350. This gives an estimated benefit of £4,000 to £8,000 over the appraisal period, in present value terms.</p> <p><u>Over three day (O3D) injuries:</u> <i>If a 1% reduction over five years were to be assumed:</i> 32% of 2,800 total O3D injuries in 2005/06 would equate to a potential reduction of 896 O3D injuries. 1% of this total equates to 9 O3D injuries that may be prevented over a five year period – an average of 2 per year. The EAU appraisal value estimate for the costs of an O3D injury: £5,500. This gives an estimated benefit of £47,100, in present value terms.</p> <p>Combining the above benefits yields total estimated benefits, if benefits are incurred across all targeted farms, of approximately <b>£235,000 to £423,800</b> in present value terms over a five year appraisal period. This corresponds to an annualised value of approximately £47,000 to £84,600 per annum. A reduction in injuries of approximately 3 - 5 times this would be required for the estimated benefits of the Farmwise guidance to exceed the estimated costs over the 5 year period.</p>
<b>Consultation:</b>	This approach has been discussed with HSE’s Chief Economist and the Better Regulation Team.
<b>Chief Economist’s comments:</b>	
<b>Recommendation:</b>	That based on proportionality, a full impact assessment is not produced.

**Signed:**..... **Date:** .....

**HSE’s Chief Economist**